

# The Wimmera Mallee Ecosystem Function Project

## Fact Sheet 4

### Points of interest:

- Key messages from the project
- Demonstration sites
- The Glove Box Guide

How can we sustainably manage remnant vegetation in an agricultural landscape? A collaboration between the Arthur Rylah Institute (ARI), the Birchip Cropping Group (BCG), and CSIRO's Sustainable Ecosystems, has been working for the past two years to answer this question.

The *Wimmera Mallee Ecosystem Function Project*

has found that the small amount of native vegetation remaining in the Wimmera Mallee is typically fragmented, isolated and highly degraded. The project highlighted how vital it is to prevent further degradation of remnant patches, how simple it can be to improve the health of remnants and the need to increase native vegetation cover.



*A healthy remnant with good understorey and ground cover.*

## Key messages from the project

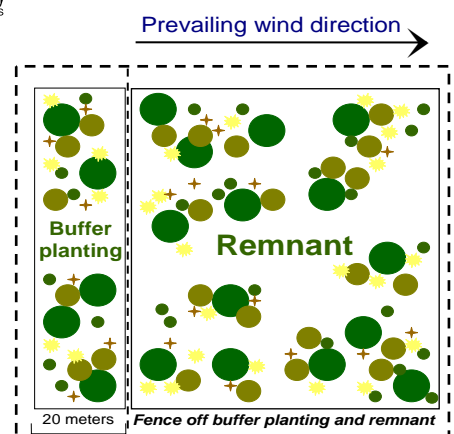
- All remnants can add value to production by contributing to soil stability, water infiltration and nutrient cycling.
- Uncontrolled livestock access is the greatest threat to the ecological function of a remnant. Livestock prevent regeneration of native species, damage the biological soil crust and increase nutrient levels in a remnant.
- Remnants require longer periods without stock access to allow native seedlings to germinate and grow beyond the reach of livestock.
- Over time, remnants that exclude stock access show an increase in the rate of natural regeneration and recruitment and a decline in the cover of annual weeds.
- Targeted tree and shrub planting on the exposed windward edge of a remnant will provide a buffer from the wind.
- Revegetation efforts to expand the native vegetation area will be more successful on the protected leeward side of the remnant as the existing remnant will offer protection from threats such as windblown nutrients and sediment.

BCG  
73 Cumming Ave  
PO Box 85  
Birchip Vic 3483  
P: 03 5492 2787  
F: 03 5492 2753  
E: info@bcg.org.au  
www.bcg.org.au

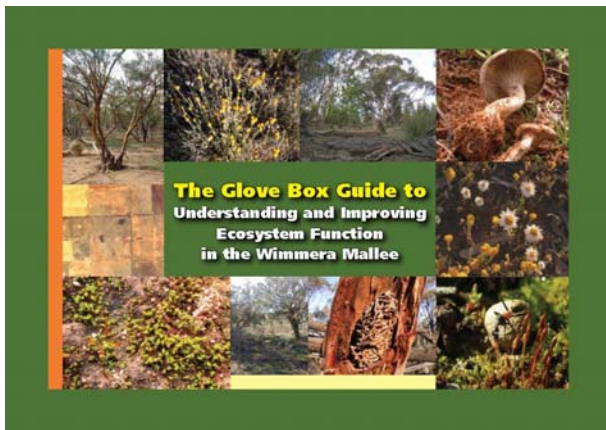
## Demonstration Sites

*Two demonstration sites have been established in the Wimmera Mallee. The sites are trialling methods to improve regeneration success and will be used for practical demonstrations of native vegetation management techniques. The sites also provide an example of how to best manage a remnant for enhanced ecological function into the future.*

*An example diagram of the demonstration sites that have been established.*



# The Glovebox Guide



## Understanding your patch



The 'Understanding your patch' page shows the layers that make up a healthy remnant patch.

## Grasses, Rushes & Herbs - What to look for . . .

**Grasses, rushes and herbs** increase the amount of ground cover, stabilise the soil and provide important habitat for native fauna such as the Samphire Skink.

**Fruits, flowers and seeds** are an important food source for insects, birds and small mammals. The native fauna supported by these floral resources play a very important role in pollination.

**A range of grass and herb species** means greater diversity, providing a range of different habitats and food sources. Summer and winter active species limit opportunities for annual weeds.

**Perennial cover** year round supports healthier soils and nutrient retention.

The 'Grasses, Rushes & Herbs- What to look for...' pages describe what you need to look for in the grasses, rushes and herb layer, the 'Threats' to the layer and a list of the 'Actions you can take' to ensure that the grasses, rushes and herb layer in the patch is healthy and functional.

The Glove Box Guide to Understanding and Improving Ecosystem Function in the Wimmera Mallee is an easy to use guide that is designed to help farmers and land managers understand their patch of native vegetation. The guide can assist farmers and land managers track the health and function of their remnant vegetation and revegetation projects. The guide highlights:

- what to look for in a patch of native vegetation
- the threats to different layers of vegetation
- simple actions that can be taken to reduce the threats and improve the

health of their native vegetation

- tips on revegetation and regeneration
- grazing strategies that will promote regeneration within a remnant

The guide explains ecological health and the benefits of a healthy remnant. It is also looks at how remnant patches fit within the agricultural landscape and the importance of maintaining and increasing the connectivity between patches. Connectivity ensures wild-life movement, the flow of pollinators through the landscape and the opportunity for native plant dispersal.

## Your patch in the landscape

The landscapes of the Wimmera Mallee are highly fragmented, with remnant patches isolated in a mosaic of cropped and grazed paddocks. The native vegetation and fauna that define these remnants are vulnerable because of this isolation, especially in the face of a changing climate.

The best action to ensure native species survival is to improve landscape connectivity.

Connectivity within the landscape means different things for different species- but most importantly it allows for movement of resources between patches and migration of native fauna

Generous corridors of native vegetation help native fauna avoid open country. Maintaining trees in paddocks will help other native fauna like bats as they can roost in open areas.

Large intact remnants are highly valued but small remnants and paddock trees are important too!



**Fragmented** vegetation was once continuous but after intensive clearing patches have become small **isolated** islands.

The 'Your patch in the landscape' page highlights how important each patch of native vegetation is, but due to fragmentation and isolation, the movement of native fauna and resources throughout the landscape is restricted.

To obtain more information or copies of the project's reports, fact sheets, articles or Glovebox Guide please contact BCG or visit the Ecosystem Function Project page on the BCG web site [www.bcg.org.au](http://www.bcg.org.au).

Project supported by:

In partnership with:

Printed on 100% recycled paper



Thank-you to the 100 landholders and community members that contributed to the success of this project.